Cleanup Report Mercy Development Company Property 2204 West Nob Hill Boulevard Yakima, Washington

April 22, 2004

Prepared for

Mercy Development Company Yakima, Washington



TABLE OF CONTENTS

	TABLE OF CONTENTS	
		Page
INTRODU	CTION	2
BACKGRO	DUND	2
SITE PREI	PARATION	3
SOIL EXC	AVATION	4
CONFIRM	IATION SOIL SAMPLING	5
SOIL DISE	POSAL	6
BACKFIL	LING	6
SUMMAR	Y AND CONCLUSIONS	7
USE OF R	EPORT	8
REFEREN	CES	8
	* ************************************	
	LIST OF FIGURES	
Figure	<u>Title</u>	
1 2 3	Vicinity Map Estimated Extent of Separate Phase Hydrocarbon Soil Excavation and Sampling Results, February 2004	

LIST OF TABLES

Table Title

Soil Analytical Results

LIST OF APPENDICES

<u>Appendix</u>	Title
A	Well Abandonment Form
В	Yakima Health District Approval Letter
C	Laboratory Analytical Report
D	Anderson PCS Facility Load Tickets



INTRODUCTION

This report describes an independent cleanup action conducted by Mercy Development Company (Mercy) at their property located at 2204 Nob Hill Boulevard in Yakima, Washington (see Figure 1). This cleanup action took place between February 23 and March 1, 2004, and was conducted as an independent cleanup action pursuant to Section 515 of the Model Toxics Control Act (MTCA) Cleanup Regulation (WAC 173-340). The purpose of this report is to satisfy the reporting requirements of WAC 173-340-515(4)(a) and to provide sufficient information on the cleanup to support a potential future request for a Washington State Department of Ecology (Ecology) determination of No Further Action (NFA) for this site under Washington's Voluntary Cleanup Program (VCP).

BACKGROUND

The property is located on the southwestern corner of West Nob Hill Boulevard and South 22nd Avenue in Yakima, Washington (Figure 1). The cleanup action took place on a parcel of the property that is part of the common areas (parking lot) of a retail center, where tenants include a Safeway store (Safeway Store #1235). Specifically, the cleanup action took place within the northeast corner of the parking lot on the subject property. Safeway is developing a portion of the subject property east of the cleanup site into a retail gasoline sales facility (i.e., fueling center). The property layout showing the approximate proposed fueling center location is presented on Figure 2. The remaining site background information presented in this section is based primarily on information contained in a remedial investigation report prepared by Kleinfelder Associates (Kleinfelder 1994) and a Phase II Environmental Site Assessment (ESA) report prepared by Environmental Partners, Inc. (EPI 2002).

Prior to use as a Safeway parking lot, the subject property was the site of a wholesale and retail material supply company called United Builders, which operated at the property until approximately 1988. There appears to have been at least two underground storage tanks (USTs) associated with the former United Builders facility. In addition, at least two apparent dry wells were identified on historic site drawings (EPI 2002). Sanborn Fire Insurance Maps from the 1950s and 1962 indicate that prior to United Builders, the subject property was used for light industrial activities.

Three separate soil and groundwater investigations took place on the subject property between 1992 and 2001 including a 1992-1994 remedial investigation by Kleinfelder (Kleinfelder 1994), a 1999 focused source investigation by Landau Associates, and a 2001 Phase II Environmental Site Assessment by Environmental Partners Inc (EPI 2002) under contract to Safeway Inc. The remedial investigation by Kleinfelder was conducted in response to a gasoline release from a gasoline service station located on the corner of Nob Hill Boulevard and South 24th Avenue, approximately one block west of the subject

property. These investigations revealed the presence of petroleum-contaminated soil (PCS) within the seasonal range of the groundwater table [i.e., from 5 to 10 ft below ground surface (BGS)] over an approximate 10,000 ft² area of the north-central portion of the parking lot. This seasonal range of the groundwater table is also referred to herein as the smear zone because separate phase hydrocarbon (SPH) product floating on the water table creates a smear zone of contaminated soil as the water table fluctuates over its normal range. SPH product up to approximately 9 inches thick was measured in two monitoring wells, KMW-03 and temporary well YSB-1, located near the center of this area. These wells and the estimated extent of the SPH, as delineated by EPI (2002), are shown on Figure 2. PCS was not found above the seasonal high groundwater level (i.e., the smear zone) with the exception of a small area around boring YSB-8 located to the immediate east of the SPH area (see Figure 2). Soil at the site generally consists of brown, soft to medium dense, sandy silt with a trace of gravel.

The objective of this cleanup was two-fold:

- Remove PCS and SPH product from the area of the subject property near YSB-1 (the YSB-1 area; Figure 2) as a source control measure and to address the SPH removal requirements of WAC 173-340-450(4)
- Remove shallow PCS (0 to 6 ft BGS) from the area around YSB-8 (the YSB-8 area) that has
 the greatest potential to be encountered during future site grading, utility installation, and
 foundation construction.

This cleanup approach was originally proposed in a March 7, 2002 letter from Landau Associates to Mark Fickes of Velikanje Moore & Shore. Additional rationale for this cleanup action is contained in the March 2002 letter.

SITE PREPARATION

Prior to the commencement of field activities, monitoring well KMW-03, which was located within the YSB-1 excavation area, was decommissioned by a licensed well installation company, Riebe Well Drilling of Yakima, Washington, under subcontract to MRM Construction of Ellensburg, Washington, the general contractor selected by Mercy to implement the remediation plan. The well was abandoned by filling the 4-inch-diameter casing with bentonite in accordance with WAC-173-160. The monitoring well abandonment form prepared by Riebe and submitted to Ecology is provided in Appendix A.

MRM Construction contacted the local one-call utility locate service to mark and clear the location of major utilities in public right-of-way areas adjacent to the subject property. MRM Construction also contracted with a private utility locating firm to further delineate underground utilities and pipes on the subject property. Additional site preparation activities included the following:

- Obtaining approval from the Yakima Health District to process excavated PCS at the Anderson PCS Facility. The approval letter is included in Appendix B. Processing at the Anderson PCS Facility consists of biologically treating the soil through land farming.
- Obtaining a grading permit from the City of Yakima.
- Installing temporary chain link fencing around the perimeter of the work area to secure the site.
- Removing existing asphalt concrete pavement in both the YSB-1 and YSB-8 areas to allow
 access to the underlying soil. Asphalt debris (a total of about 15 yd³) was placed directly into
 truck and trailers and was transported offsite to the Anderson PCS facility for recycling.

SOIL EXCAVATION

Soil excavation commenced on February 23, 2004. MRM Construction utilized a Hitachi 200 track hoe to excavate both the YSB-1 and YSB-8 areas. The lateral limits of the two excavations are shown on Figure 3. In the YSB-8 excavation area, soil was removed to a depth of 6 ft BGS throughout the designated 25-ft x 25-ft area as shown on Figure 3 (i.e., vertical side slopes were used throughout the YSB-8 excavation). No obvious signs of petroleum contamination were observed in the YSB-8 excavation during soil removal. The total volume of soil removed from the YSB-8 excavation area was approximately 140 yd³ (measured in-place), or approximately 220 tons. All of the soil removed from the YSB-8 excavation was hauled to the Anderson PCS facility for processing.

In the YSB-1 excavation area, soil was removed to a maximum depth of 12 ft BGS throughout most of the area and up to 16 ft BGS in the southwest corner where the excavation was extended to the south to remove heavy oil stained soil that was encountered during excavation. This area is referred to herein as the heavy oil stained soil area and is discussed further below. The west and east sides of the YSB-1 excavation consisted of approximate side slopes of 1:1 (H:V) extending to 5 ft BGS (Figure 3) followed by vertical side slopes to the bottom of the excavation. Soil screening conducted during excavation of the YSB-1 area did not detect the presence of contamination in the upper 5 ft of the YSB-1 soil, consistent with previous site investigations. Soil from the upper 5 ft was stockpiled onsite and reused later for backfill. In addition, no obvious signs of petroleum contamination were observed in the YSB-1 excavation above the smear zone during soil removal. Similarly, obvious signs of petroleum contamination were not observed on the bottom of the completed excavation. The results of confirmation sampling conducted in the YSB-1 area (described below) were consistent with these observations. Impacted soil, based on soil odor and a blue-gray color, was detected over most of the YSB-1 excavation area within the smear zone interval. An estimated 390 yd³ or 630 tons of PCS were removed from the YSB-1 area.

The YSB-1 excavation was extended to approximately 1 ft below the observed water table to allow SPH floating on the water surface within the excavation to be removed. The water table was observed at approximately 11 ft BGS; therefore, the excavation was extended to 12 ft BGS and approximately 1 ft of water was present in the bottom of the excavation after stabilizing. A slight sheen was observed on portions of the water surface; however, measurable floating SPH (i.e., greater than 0.01 ft) were not observed. The work plan called for removing floating SPH, if present in the excavation, using oil sorbent pads and booms until only a sheen remained on the water surface. Although SPH was not observed in the excavation, oil sorbent pads and booms were placed in the excavation and monitored over a two-day period to observe whether floating SPH conditions developed in the excavation. Such conditions were not observed over the two-day period and the oil sorbent pads and booms were removed from the excavation immediately prior to backfilling.

During excavation of the southwest corner of the YSB-1 area, heavy oil-range PCS was observed below 5 ft BGS. The excavation was extended in a southerly direction to remove the observed heavy oil stained soil (see Figure 3). The excavation extended to a maximum depth of 16 ft BGS to remove the most heavily stained soil. Only minor heavy oil staining was observed on the sidewalls and bottom of the completed excavation. The results of confirmation sampling conducted in the heavy oil stained area (described below) were consistent with these observations. Approximately 100 yd³ or 160 tons of soil was excavated from the heavy oil stained soil area. This soil was hauled to the Anderson PCS facility for processing. A sample of the excavated material, identified as YSB-1-CHAR, was analyzed for NWTPH-Dx to characterize the petroleum contamination. The detected concentrations were 400 mg/kg in the diesel range and 260 mg/kg in the lube oil range (Table 1).

In summary, a total of approximately 630 yd³ (in-place) or 1,005 tons of PCS was excavated and hauled to the Anderson PCS facility for processing. An additional 330 yd³ of clean overburden soil was also excavated. This soil was reused onsite as backfill (see below).

CONFIRMATION SOIL SAMPLING

Confirmation soil samples were collected from the sidewalls and bottom of the YSB-1, YSB-8, and heavy oil stained soil excavations to document the effectiveness of the soil removal action. Confirmation samples were collected and delivered to CCI Analytical Laboratories in Everett, Washington for analysis of total petroleum hydrocarbons (TPH) and benzene, toluene, ethylbenzene, and xylenes (BTEX) by methods NWTPH-G/BTEX and NWTPH-Dx. The laboratory analytical report is presented in Appendix C. Confirmation soil sample locations are shown on Figure 3. Sidewall samples from the YSB-1 and YSB-8 areas were collected from a depth of 4 to 6 ft BGS and typically consisted of composite samples from two locations along the sidewall, as shown on Figure 3. Sidewall samples from

the heavy oil stained area were collected from approximately 8.5 ft BGS. Shallow (less than 8 ft) sidewall samples were collected using a stainless steel trowel attached to an extendable rod, and deeper sidewall samples and bottom samples were collected by sampling soil from the inside portion of the track hoe bucket. All sample compositing was conducted at the laboratory.

The concentrations of the target analytes were below the laboratory reporting limit in all but three of the samples. Analytical data is presented in Table 1 and is shown on Figure 3. The three samples that contained detectable concentrations were YSB-8-BTM1-6, YSB-1-SSW-5, and YSB-1-WSW-8.5 (see Figure 3). The detected analytes were diesel-range and lube oil-range petroleum hydrocarbons and the detected concentrations were well below the MTCA Method A cleanup level of 2,000 mg/kg. Sample YSB-8-BTM1-6 had a diesel concentration of 61 mg/kg and a lube oil concentration of 53 mg/kg. Sample YSB-1-SSW-5 had a diesel concentration of 33 mg/kg, and sample YSB-1-WSW-8.5 had a diesel concentration of 27 mg/kg.

In summary, the confirmation soil samples collected in the YSB-8 area document that the removal action was effective in removing PCS from above the smear zone in this area, thereby removing contaminated soil with the greatest potential to be encountered during future site grading, utility installation, and foundation construction. Confirmation soil samples from the YSB-1 area document that the removal action was effective in removing PCS and SPH from the most contaminated area of the subject property and provided additional data to support previous interpretations that PCS is not generally present above the smear zone within the subject property. Confirmation soil samples from the heavy oil stained soil area document that the removal action in this area was effective in removing the heavy oil-contaminated soil to below MTCA Method A cleanup levels.

SOIL DISPOSAL

During the remedial action, 1,005 tons of PCS were excavated and processed offsite. Excavated soil was placed directly into trucks and trailers and transported to the Anderson PCS facility located in Yakima, Washington. Copies of the load tickets from the Anderson facility are included in Appendix D.

BACKFILLING

Following completion of the excavation activities, the contractor backfilled the excavation with a combination of imported 4-inch minus crushed rock and the clean soil stockpiled onsite. Approximately 764 tons of imported fill was used. Approximately 4 ft of crushed rock was placed in the base of the YSB-1 excavation over the 8 to 12 ft BGS interval to bring the fill above the water level. The stockpiled soil removed from the upper 5 ft of the YSB-1 excavation was used to backfill the YSB-1 excavation

from approximately 3.5 to 8 ft BGS and the YSB-8 excavation from 3.5 to 6 ft BGS. This material was placed in 1 ft lifts and compacted with a sheep's-foot roller mounted on the excavator. The remainder of the excavation was filled to within 6 inches of the surface with 1-ft lifts of imported crushed rock and compacted by the sheep's-foot roller and by trackrolling with the excavator.

SUMMARY AND CONCLUSIONS

Approximately 630 yd³ (in-place) or 1,005 tons of PCS were removed from the subject property between February 23 and 25, 2004 for purposes of source control and to eliminate a potential shallow PCS exposure pathway. Although SPH was previously measured in monitoring wells within the excavation area, no SPH was observed within the submerged excavation bottom which extended to 1 ft below the water table. This was likely due to the limited quantity of SPH within the area and the seasonally low water table at the time of excavation which results in a larger quantity of SPH being sorbed to smear zone soil and subsequently removed through excavation of the smear zone soil. Field screening conducted along the completed excavation bottom and sidewalls above the smear zone indicated generally clean soil conditions. Confirmation soil sampling conducted along the excavation bottom and sidewalls confirmed these observations with all measured petroleum constituent concentrations being well below applicable MTCA Method A soil cleanup levels. The objectives of the cleanup action were therefore achieved.

Information contained in this report may be used to support a request to Ecology for a NFA determination on the subject property. Such a request may be made after completing additional groundwater sampling at the property designed to evaluate the effects, if any, of residual smear zone PCS on groundwater quality.

USE OF REPORT

This Cleanup Report has been prepared for the exclusive use of Mercy Development Company for specific application to the Mercy Development Property at 2204 West Nob Hill Boulevard, Yakima, Washington. No other party is entitled to rely on the information, conclusions, and recommendations included in this document without the express written consent of Landau Associates. Further, the reuse of information, conclusions, and recommendations provided herein for extensions of the project or for any other project, without review and authorization by Landau Associates, shall be at the user's sole risk. Landau Associates warrants that within the limitations of scope, schedule, and budget, our services have been provided in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions as this project. We make no other warranty, either express or implied.

This document has been prepared under the supervision and direction of the following key staff.

LANDAU ASSOCIATES, INC.

Jerry R. Ninteman, P.E. Senior Associate

and

Kenneth J. Reid, L.G. Staff Geologist

JRN/KJR/acw



REFERENCES

Environmental Partners, Inc. (EPI). 2002. Letter report to Mitch Johnson of Safeway, Inc. from Thomas Morin and Eric Koltes. Re: Phase II Environmental Site Assessment Letter Report, Store No. 1235 Proposed Fueling Center, 2204-A Nob Hill Boulevard, Yakima, Washington. March 25.

Kleinfelder Associates. 1994. Final Draft State Remedial Investigation/Feasibility Study, Tiger Oil Facility, West Nob Hill Boulevard & South 24th Avenue, Yakima, Washington. April 4.

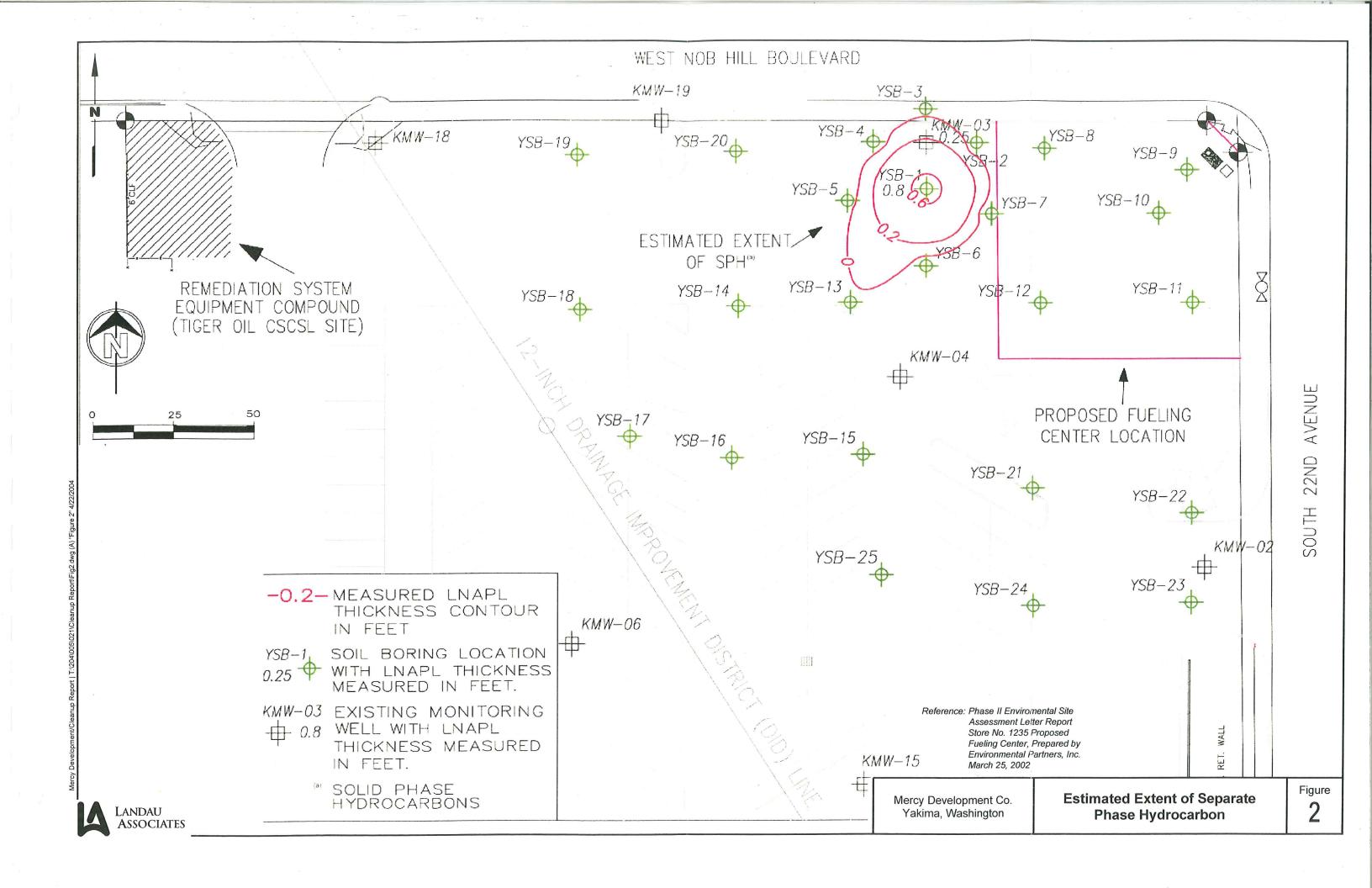
Company Property

Yakima, Washington

LANDAU

ASSOCIATES

Selah Valley



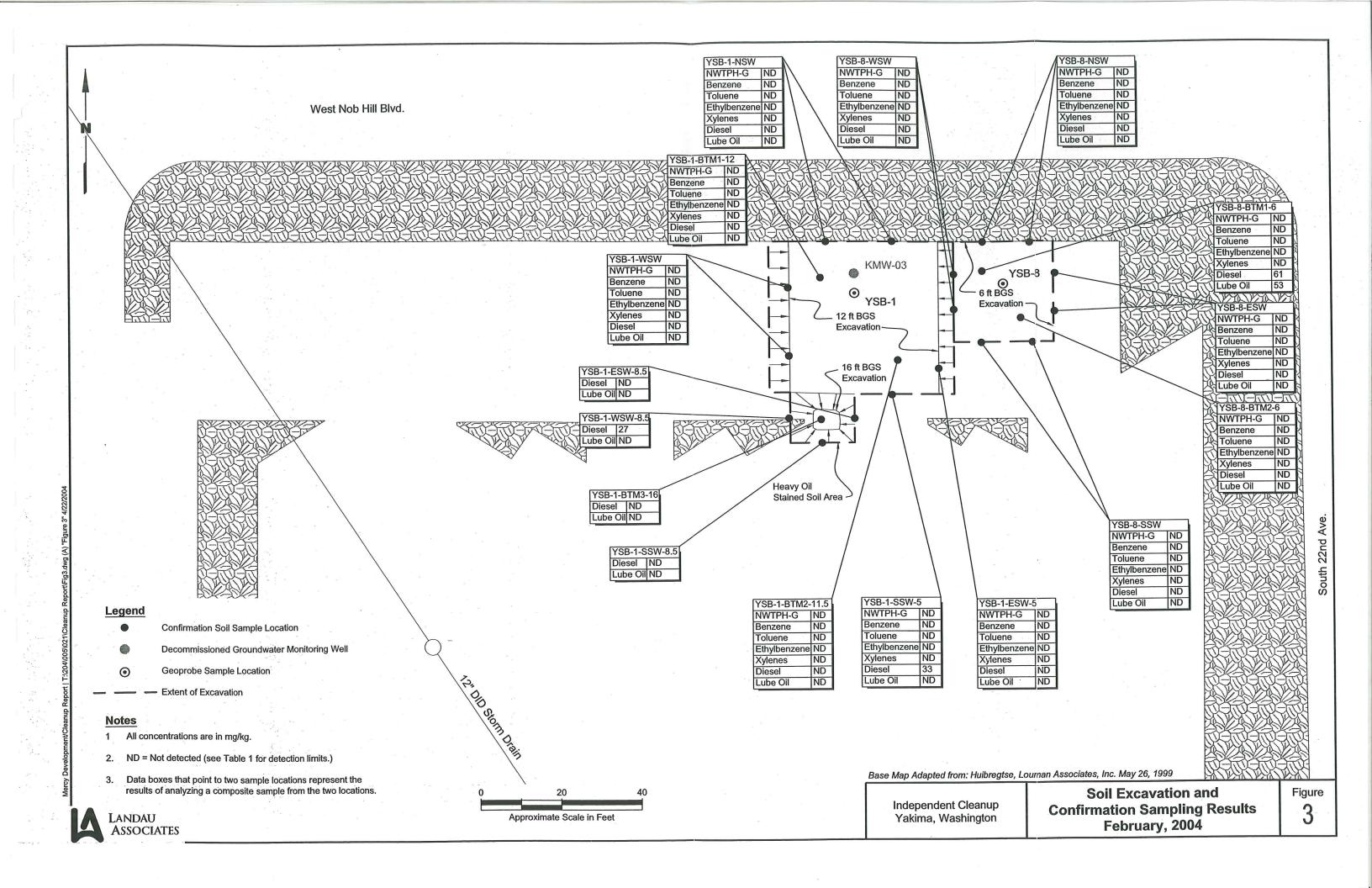


TABLE 1 SOIL ANALYTICAL RESULTS MERCY DEVELOPMENT COMPANY

			_			_			_	_	_	_	_					_
PH-G	Lube Oil mg/kg	20 U	50 U	53	50 U	50 U	50 U	260	50 U	50 U	50 U	50 U	50 U	50 U	20 U	50 U	50 U	50 U
NWTPH-G	Diesel mg/kg	25 U	25 U	61	25 U	25 U	25 U	400	83	25 U	25 U	25 U	25 U	25 U	25 U	25 U	25 U	27
	Xylenes mg/kg	0.2 U	0.2 U	0.2 U	0.2 U	0.2 U	Ä	N A	0.2 U	NA	NA	NA	0.2 U					
5X 3021	Ethyl- benzene mg/kg	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	NA	NA	0.05 U	NA	N A	NA	0.05 U					
BTEX EPA 8021	Toluene mg/kg	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	NA	NA	0.05 U	NA	NA A	NA	0.05 U					
	Benzene mg/kg	0.03 U	0.03 U	0.03 U	0.03 U	0.03 U	NA	NA	0.03 U	NA	NA	NA	0.03 U					
NWTPH-G	Gasoline mg/kg	3.0	3 U	3 0	3 0	3 0	NA	NA	3 0	NA	AA	NA	3 0	3 0	3 U	3 0	3 0	3.0
	Date Collected	2/24/2004	2/24/2004	2/24/2004	2/24/2004	2/24/2004	2/25/2004	2/25/2004	2/25/2004	2/25/2004	2/25/2004	2/25/2004	2/24/2004	2/24/2004	2/24/2004	2/24/2004	2/24/2004	2/24/2004
	Lab ID	402093-01	402093-02	402093-03	402093-04	402093-17	402093-18	402093-19	402093-20	402093-21	402093-22	402093-23	402093-24	402093-25	402093-26	402093-27	402093-28	402093-29
	Sample Location	YSB-1-BTM1-12	YSB-1-BTM2-11.5	YSB-8-BTM1-6	YSB-8-BTM2-6	YSB-1-ESW-5	YSB-1-BTM3-16	YSB-1-CHAR	YSB-1-SSW-5	YSB-1-ESW-8.5	YSB-1-SSW-8.5	YSB-1-WSW-8.5	YSB-8-WSW	YSB-8-ESW	YSB-8-SSW	YSB-8-NSW	YSB-1-NSW	YSB-1-WSW-8.5

 $\label{eq:concentration} U = \text{Analyte} \text{ analyzed for but not detected at a concentration above reporting limit.}$ NA = Not analyzed.

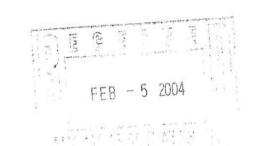
Well Abandonment Form

Original & 1st copy - Ecology, 2nd copy - owner, 3rd copy - driller	CURRENT A 305/5 Notice of Intent No.	
astruction/Decommission ("x" in circle)	Water Right Permit No.	
Construction		7-
Decommission ORIGINAL CONSTRUCTION Notice of Intent Number	Property Owner Name Mever Bordhomen	_
OPOSED USE: Domestic Industrial Municipal	Wall Sweet Address 24/ NOS Hall RIVE.	
DeWater Irrigation Test Well Other	City Yn Manage County: Yn Mana	-
PE OF WORK: Owner's number of well (if more than one)	City YM MIN W SEW See 26 Tum 13 R/8/E	WM.
New Well Reconditioned Method: Dug Bored Driven Deepened Cable Rotary Jetted	Lat/Long: Lat Deg Lat Min/Sec	or /WM
MENSIONS: Diameter of well 4 inches, drilled 26 ft. Depth of completed well 20 ft.	(s,t,r still REQUIRED) Long Deg Long Min/Sec Tax Parcel No/8/326 42054	,
ONSTRUCTION DETAILS	CONCEDUCTION OF DECOMMISSION PROCEDURE	(4) (1) (4)
stalled: Union installed Union	Formation: Describe by color, character, size of material and structure, kind and nature of the material in each stratum penetrated, with at least the control for each change of information. Indicate all water encountered.	and the
erforations: F Yes S No	(USE ADDITIONAL SHEETS IF NECESSARY.) MATERIAL FROM	то
/pe of perforator usedin, and no. of perfs fromft. to	ft.	
creens: Yes No K-Pac Location PUC	ABANKON MW-03	
anufacturer's Name		
ype	0/4 hole Plug 0 2	0
e e fito II	"	
iamSlot Sizeromtt. tot Gravel/Filter packed: Yes. \ No \ \ Size of gravel/sand		1
ft. toft.		
Surface Seal: No Yes No To what depth?ft		
Materials used in scal Deal Soll		
Materials used in seal Dearle water? Mayes No		
Did any strata contain unusable water? Product 1945 No		
Materials used in seal Dearle All Person Depth of Strata — 6 - 5 Method of sealing strata off		
Materials used in seal Dearles No Did any strata contain unusable water? No Type of water? Product 1945 Depth of strata -6 - 5 Method of sealing strata off PUMP: Manufacturer's Name HP	* H Y * F H I I I I I I	¥.
Materials used in seal Deal Seal Seal Seal Seal Seal Seal Seal S	* H Y * F H I I I I I I	Ý.
Materials used in seal Deal State Did any strata contain unusable water? Product 1945 Depth of strata Method of sealing strata off PUMP: Manufacturer's Name Type: H.P. WATER LEVELS: Land-surface elevation above mean sea level Static level ft. below top of well Date 2/19/54		ý.
Materials used in seal		Ÿ:
Materials used in seal Deal State No Depth of strata Depth o		*0
Materials used in seal Deal State No Depth of strata Depth o		
Materials used in seal Deal State No Depth of strata Depth o	ft.	*0
Materials used in seal Deal State No No No No No No No N	ft.	*0
Materials used in seal Deal State No No Depth of strata De	ft.	*0
Materials used in seal	ft.	*0
Materials used in seal Deal State No No Depth of strata De	ft.	*0
Materials used in seal	ft.	*0
Materials used in seal Deal State No Depth of strata Depth o	ft.	*0
Materials used in seal	ft.	*0
Materials used in seal	ft.	15.
Materials used in seal	Start Date 2/2/04 Completed Date 1/3/6	112
Materials used in seal	Start Date Completed Date Completed Date responsibility for construction of this well, and its compliance with ion reported above are true to my best knowledge and belief.	th all
Materials used in seal	Start Date Completed Date / 3/6 and its compliance with ion reported above are true to my best knowledge and belief. Drilling Company Lie 0 0 the	thall
Materials used in seal	Start Date Completed Date Completed Date (19/6) responsibility for construction of this well, and its compliance with ion reported above are true to my best knowledge and belief. Drilling Company	th all
Materials used in seal	Start Date Completed Date Completed Date responsibility for construction of this well, and its compliance with ion reported above are true to my best knowledge and belief.	th all

Yakima Health District Approval Letter



Yakima Health District 104 North First Street, Suite 204 Yakima, Washington 98901-2667 Phone (509) 575-4040



February 3, 2004

Mr. Mark Fickes C\O Velikanje Moore & Shore P.O. Box 2550 Yakima, WA 98907

RE: 2204-A Nob Hill Boulevard, 2204 Nob Hill Blvd., Yakima, WA: Petroleum Contaminated Soil

Mr. Mark Fickes,

This office has reviewed the data on the above mentioned project. The data submitted indicates that the contaminant(s) which require(s) remediation is/are gasoline/diesel/heavy oil. Based on the data submitted it has been determined that the soil may be processed at the Anderson PCS Facility provided that all handling is in accordance with the procedure that has been approved by this office and Washington State Department of Ecology. This letter is to notify you that currently the soil will be considered to be stored on the property and no treatment can begin until the total fee is paid. Waste material may be stored for up to 90 days. Anderson PCS Facility will notify me of the total number of tons delivered for treatment and I will bill you for the remainder of the fee at that time.

FEE ACCOUNT:

Velikanje Moore & Shore

PROJECT NAME:

2204-A Nob Hill Boulevard 2204 Nob Hill Blvd. Yakima, WA

PRE-TREATMENT AUTHORIZATION:

(Based on time spent prior to soil delivery to the site at \$98/hour)

TONNAGE FEE AT \$0.42 PER TON:

To be determined after delivery

BALANCE OWED:

To be billed after delivery

If you have any questions regarding this letter please contact me at (509) 249-6562.

Sincerely,

Ted Silvestri, RS

Environmental Health Specialist

I Shaka

cc:

Anderson PCS Facility Jerry R. Ninteman, P.E.

Laboratory Analytical Report





February 26, 2004

Mr. Jerry Ninteman Landau Associates 130-2nd Ave S. Edmonds, WA 98020

Dear Mr. Ninteman

On February 25th, twenty-three soil samples were received by our laboratory and assigned our laboratory project number 402093. The samples were identified as your Mercy Development project with your project number of 204005.011. The sample identification and requested analyses are outlined on the attached chain of custody record.

Attached is the analytical report for this project.

No abnormalities or nonconformances were observed during the analyses of the project samples.

Please do not hesitate to call me if you have any questions or if I can be of further assistance.

Sincerely

CCI Analytical Laboratories, Inc.

Chuck B. Rancatti Laboratory Director



CLIENT:

LANDAU ASSOCIATES

130-2ND AVE. S.

EDMONDS, WA 98020

DATE:

2/26/04

CCIL JOB #:

402093

CCIL SAMPLE #:

DATE RECEIVED:

2/25/04

WDOE ACCREDITATION #:

C142

CLIENT CONTACT: JERRY NINTEMAN

CLIENT PROJECT ID:

MERCY DEVELOPMENT 204005.011

CLIENT SAMPLE ID:

YSB-1-BTM1-12' 2/24/04 1015

	DATA RESUL	TS			
ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	ND	MG/KG	2/25/04	LAH
BENZENE TOLUENE	EPA-8021 EPA-8021	ND(<0.03)	MG/KG MG/KG	2/25/04	LAH
ETHYLBENZENE	EPA-8021	ND(<0.05) ND(<0.05)	MG/KG	2/25/04 2/25/04	LAH
XYLENES TO A NOT	EPA-8021	ND(<0.2)	MG/KG	2/25/04	LAH
TPH-DIESEL RANGE TPH-LUBE OIL RANGE	NWTPH-DX NWTPH-DX	ND ND	MG/KG MG/KG	2/25/04 2/25/04	DLC

DIESEL RANGE REPORTING LIMIT IS 25 MG/KG

LUBE OIL RANGE REPORTING LIMIT IS 50 MG/KG

^{* &}quot;ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT, REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS: GASOLINE(VOLATILE RANGE) REPORTING LIMIT IS 3 MG/KG

[&]quot; UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS



CLIENT:

LANDAU ASSOCIATES

130-2ND AVE. S.

EDMONDS, WA 98020

DATE:

2/26/04

CCIL JOB #:

402093

CCIL SAMPLE #:

DATE RECEIVED:

2/25/04

WDOE ACCREDITATION #:

C142

CLIENT CONTACT: JERRY NINTEMAN

CLIENT PROJECT ID:

MERCY DEVELOPMENT 204005.011

CLIENT SAMPLE ID:

YSB-1-BTM2-11.5' 2/24/04 1350

	DATA RESUL	TS			
ANALYTE				ANALYSIS	ANALYSIS
ANALTIE	METHOD	RESULTS*	UNITS**	DATE	BY
TPH-VOLATILE RANGE	NWTPH-GX	ND	MG/KG	2/25/04	LAH
BENZENE	EPA-8021	ND(<0.03)	MG/KG	2/25/04	LAH
TOLUENE	EPA-8021	ND(<0.05)	MG/KG	2/25/04	LAH
ETHYLBENZENE	EPA-8021	ND(<0.05)	MG/KG	2/25/04	LAH
XYLENES	EPA-8021	ND(<0.2)	MG/KG	2/25/04	LAH ·
TPH-DIESEL RANGE	NWTPH-DX	ND	MG/KG	2/25/04	DLC
TPH-LUBE OIL RANGE	NWTPH-DX	ND	MG/KG	2/25/04	DLC

^{* &}quot;ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS: GASOLINE(VOLATILE RANGE) REPORTING LIMIT IS 3 MG/KG DIESEL RANGE REPORTING LIMIT IS 25 MG/KG LUBE OIL RANGE REPORTING LIMIT IS 50 MG/KG

[&]quot; UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS



CLIENT:

LANDAU ASSOCIATES

130-2ND AVE. S.

EDMONDS, WA 98020

DATE:

2/26/04

CCIL JOB #:

402093

CCIL SAMPLE #:

3

DATE RECEIVED:

2/25/04

WDOE ACCREDITATION #:

C142

CLIENT CONTACT: JERRY NINTEMAN

CLIENT PROJECT ID:

MERCY DEVELOPMENT 204005.011

CLIENT SAMPLE ID:

YSB-8-BTM1-6' 2/24/04 1210

	DATA RESUL	TS			
ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	ND	MG/KG	2/25/04	LAH
BENZENE	EPA-8021	ND(<0.03)	MG/KG	2/25/04	LAH
TOLUENE ETHYLBENZENE	EPA-8021 EPA-8021	ND(<0.05) ND(<0.05)	MG/KG MG/KG	2/25/04 2/25/04	LAH LAH
XYLENES	EPA-8021	ND(<0.2)	MG/KG	2/25/04	LAH
TPH-DIESEL RANGE	NWTPH-DX	61	MG/KG	2/25/04	DLC
TPH-LUBE OIL RANGE	NWTPH-DX	53	MG/KG	2/25/04	DLC

NOTE:

CHROMATOGRAM INDICATES SAMPLE CONTAINS UNIDENTIFIED LATE DIESEL RANGE PRODUCT

AND LUBE OIL

GASOLINE(VOLATILE RANGE) REPORTING LIMIT IS 3 MG/KG

DIESEL RANGE REPORTING LIMIT IS 25 MG/KG LUBE OIL RANGE REPORTING LIMIT IS 50 MG/KG

[&]quot;"ND" INDICATES ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS:

[&]quot; UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS



CLIENT:

LANDAU ASSOCIATES

130-2ND AVE. S.

EDMONDS, WA 98020

DATE:

2/26/04

CCIL JOB #:

402093

CCIL SAMPLE #:

DATE RECEIVED:

2/25/04

WDOE ACCREDITATION #:

C142

CLIENT CONTACT: JERRY NINTEMAN

CLIENT PROJECT ID:

MERCY DEVELOPMENT 204005.011

CLIENT SAMPLE ID:

YSB-8-BTM2-6' 2/24/04 1220

DATA RESULTS

			15 M			
ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY	
TPH-VOLATILE RANGE	NWTPH-GX	ND	MG/KG	2/25/04	LAH	
BENZENE	EPA-8021	ND(<0.03)	MG/KG	2/25/04	LAH	
TOLUENE	EPA-8021	ND(<0.05)	MG/KG	2/25/04	LAH	
ETHYLBENZENE	EPA-8021	ND(<0.05)	MG/KG	2/25/04	LAH	
XYLENES	EPA-8021	ND(<0.2)	MG/KG	2/25/04	LAH	
TPH-DIESEL RANGE	NWTPH-DX	ND	MG/KG	2/25/04	DLC	
TPH-LUBE OIL RANGE	NWTPH-DX	ND	MG/KG	2/25/04	DLC	

DIESEL RANGE REPORTING LIMIT IS 25 MG/KG

LUBE OIL RANGE REPORTING LIMIT IS 50 MG/KG

^{* &}quot;NO" INDICATES ANALYZE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS: GASOLINE(VOLATILE RANGE) REPORTING LIMIT IS 3 MG/KG

^{**} UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS



CLIENT: LANDAU ASSOCIATES

130-2ND AVE. S.

EDMONDS, WA 98020

DATE:

2/26/04

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17

DATE RECEIVED:

2/25/04

WDOE ACCREDITATION #:

C142

CLIENT CONTACT: JERRY NINTEMAN

CLIENT PROJECT ID:

MERCY DEVELOPMENT 204005.011

CLIENT SAMPLE ID:

YSB-1-ESW-5' 2/24/04 1350

	DATA RESUL	T\$			
ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	ND	MG/KG	2/25/04	LAH
BENZENE TOLUENE ETHYLBENZENE	EPA-8021 EPA-8021 EPA-8021	ND(<0.03) ND(<0.05) ND(<0.05)	MG/KG MG/KG MG/KG	2/25/04 2/25/04 2/25/04	LAH LAH LAH
XYLENES	EPA-8021	ND(<0.2)	MG/KG	2/25/04	LAH
TPH-DIESEL RANGE TPH-LUBE OIL RANGE	NWTPH-DX NWTPH-DX	ND ND	MG/KG MG/KG	2/25/04 2/25/04	DLC

^{* &}quot;ND" INDICATES ANALYZE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS: GASOLINE(VOLATILE RANGE) REPORTING LIMIT IS 3 MG/KG DIESEL RANGE REPORTING LIMIT IS 25 MG/KG LUBE OIL RANGE REPORTING LIMIT IS 50 MG/KG

^{**} UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS



CLIENT:

LANDAU ASSOCIATES

130-2ND AVE. S.

EDMONDS, WA 98020

DATE:

2/26/04

CCIL JOB #:

402093

CCIL SAMPLE #:

18

DATE RECEIVED:

2/25/04

WDOE ACCREDITATION #:

C142

CLIENT CONTACT: JERRY NINTEMAN

CLIENT PROJECT ID:

MERCY DEVELOPMENT 204005.011

CLIENT SAMPLE ID:

YSB-1-BTM3-16' 2/25/04 0930

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-DIESEL RANGE TPH-LUBE OIL RANGE	NWTPH-DX NWTPH-DX	ND ND	MG/KG MG/KG	2/25/04 2/25/04	DLC

^{* &}quot;NO" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT, REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS: DIESEL RANGE REPORTING LIMIT IS 25 MG/KG LUBE OIL RANGE REPORTING LIMIT IS 50 MG/KG

[&]quot; UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS



CLIENT:

LANDAU ASSOCIATES

130-2ND AVE. S.

EDMONDS, WA 98020

DATE:

2/26/04

CCIL JOB #:

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CCIL SAMPLE #:

19

DATE RECEIVED:

2/25/04

WDOE ACCREDITATION #:

C142

CLIENT CONTACT: JERRY NINTEMAN

CLIENT PROJECT ID:

MERCY DEVELOPMENT 204005.011

CLIENT SAMPLE ID:

YSB-1-CHAR 2/25/04 0940

DATA RESULTS

*				ANALYSIS	ANALYSIS
ANALYTE	METHOD	RESULTS*	UNITS**	DATE	BY
TPH-DIESEL RANGE	NWTPH-DX	400	MG/KG	2/25/04	DLC
TPH-LUBE OIL RANGE	NWTPH-DX	260	MG/KG	2/25/04	DLC

NOTE:

CHROMATOGRAM INDICATES SAMPLE CONTAINS DIESEL FUEL, LATE DIESEL RANGE PRODUCT,

AND LUBE OIL

* "ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS: DIESEL RANGE REPORTING LIMIT IS 25 MG/KG LUBE OIL RANGE REPORTING LIMIT IS 50 MG/KG

^{**} UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS



LANDAU ASSOCIATES CLIENT:

DATE:

2/26/04

130-2ND AVE. S.

CCIL JOB #:

402093

EDMONDS, WA 98020

CCIL SAMPLE #:

DATE RECEIVED:

20

2/25/04

WDOE ACCREDITATION #:

C142

CLIENT CONTACT: JERRY NINTEMAN

CLIENT PROJECT ID:

MERCY DEVELOPMENT 204005.011

CLIENT SAMPLE ID:

YSB-1-SSW-5' 2/25/04 1000

	DATA RESUL	T\$			
				ANALYSIS	ANALYSIS
ANALYTE	METHOD	RESULTS*	UNITS**	DATE	BY
TPH-VOLATILE RANGE	NWTPH-GX	ND	MG/KG	2/25/04	LAH
BENZENE	EPA-8021	ND(<0.03)	MG/KG	2/25/04	LAH
TOLUENE	EPA-8021	ND(<0.05)	MG/KG	2/25/04	LAH
ETHYLBENZENE	EPA-8021	ND(<0.05)	MG/KG	2/25/04	LAH
XYLENES	EPA-8021	ND(<0.2)	MG/KG	2/25/04	LAH
TPH-DIESEL RANGE	NWTPH-DX	33	MG/KG	2/25/04	DLC
TPH-LUBE OIL RANGE	NWTPH-DX	ND	MG/KG	2/25/04	DLC

NOTE:

CHROMATOGRAM INDICATES SAMPLE CONTAINS PRODUCT WHICH IS LIKELY WEATHERED DIESEL FUEL

DIESEL RANGE REPORTING LIMIT IS 25 MG/KG LUBE OIL RANGE REPORTING LIMIT IS 50 MG/KG

^{* &}quot;NO" INDICATES ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT, REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS: GASOLINE(VOLATILE RANGE) REPORTING LIMIT IS 3 MG/KG

^{**} UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS



CLIENT: LANDAU ASSOCIATES DATE:

2/26/04

130-2ND AVE. S.

CCIL JOB #:

402093

EDMONDS, WA 98020

CCIL SAMPLE #:

21

DATE RECEIVED:

2/25/04

WDOE ACCREDITATION #:

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CLIENT CONTACT: JERRY NINTEMAN

CLIENT PROJECT ID:

MERCY DEVELOPMENT 204005.011

CLIENT SAMPLE ID:

YSB-1-ESW-8.5' 2/25/04 1005

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY	
TPH-DIESEL RANGE TPH-LUBE OIL RANGE	NWTPH-DX NWTPH-DX	ND ND	MG/KG MG/KG	2/25/04 2/25/04	DLC .	

^{*&}quot;ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS: DIESEL RANGE REPORTING LIMIT IS 25 MG/KG LUBE OIL RANGE REPORTING LIMIT IS 50 MG/KG

^{**} UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY. WEIGHT BASIS



CLIENT: LANDAU ASSOCIATES DATE:

2/26/04

130-2ND AVE. S.

CCIL JOB #:

402093

EDMONDS, WA 98020

CCIL SAMPLE #:

22

DATE RECEIVED:

2/25/04

WDOE ACCREDITATION #:

C142

CLIENT CONTACT: JERRY NINTEMAN

CLIENT PROJECT ID:

MERCY DEVELOPMENT 204005.011

CLIENT SAMPLE ID:

YSB-1-SSW-8.5' 2/25/04 1010

DATA RESULTS

ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-DIESEL RANGE	NWTPH-DX	ND	MG/KG	2/25/04	DLC
TPH-LUBE OIL RANGE	NWTPH-DX	ND	MG/KG	2/25/04	DLC

^{* &}quot;ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS: DIESEL RANGE REPORTING LIMIT IS 25 MG/KG LUBE OIL RANGE REPORTING LIMIT IS 50 MG/KG

^{**} UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS



CLIENT:

LANDAU ASSOCIATES

130-2ND AVE. S.

EDMONDS, WA 98020

DATE:

2/26/04

CCIL JOB #:

402093

CCIL SAMPLE #:

23

DATE RECEIVED:

2/25/04

WDOE ACCREDITATION #:

C142

CLIENT CONTACT: JERRY NINTEMAN

CLIENT PROJECT ID:

MERCY DEVELOPMENT 204005.011

CLIENT SAMPLE ID:

YSB-1-WSW-8.5' 2/25/04 1015

	KE.	

ANALYTE	, N ±	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-DIESEL RANGE TPH-LUBE OIL RANGE		NWTPH-DX NWTPH-DX	ND ND	MG/KG MG/KG	2/25/04 2/25/04	DLC

^{* &}quot;ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS: DIESEL RANGE REPORTING LIMIT IS 25 MG/KG LUBE OIL RANGE REPORTING LIMIT IS 50 MG/KG

^{**} UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS



CLIENT:

LANDAU ASSOCIATES

130-2ND AVE. S.

EDMONDS, WA 98020

DATE:

2/26/04

CCIL JOB #:

402093

CCIL SAMPLE #:

24

DATE RECEIVED:

2/25/04

WDOE ACCREDITATION #:

C142

CLIENT CONTACT: JERRY NINTEMAN

CLIENT PROJECT ID:

MERCY DEVELOPMENT 204005.011

CLIENT SAMPLE ID:

YSB-8-WSW-4' & YSB-8-WSW-2' 2/24/04 1200 & 1205

	DATA RESUL	TS			
ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	ND	MG/KG	2/25/04	LAH
BENZENE TOLUENE ETHYLBENZENE XYLENES	EPA-8021 EPA-8021 EPA-8021 EPA-8021	ND(<0.03) ND(<0.05) ND(<0.05) ND(<0.2)	MG/KG MG/KG MG/KG MG/KG	2/25/04 2/25/04 2/25/04 2/25/04	LAH LAH LAH LAH
TPH-DIESEL RANGE TPH-LUBE OIL RANGE	NWTPH-DX NWTPH-DX	ND ND	MG/KG MG/KG	2/25/04 2/25/04	DLC

^{* &}quot;NO" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS: GASOLINE(VOLATILE RANGE) REPORTING LIMIT IS 3 MG/KG DIESEL RANGE REPORTING LIMIT IS 25 MG/KG LUBE OIL RANGE REPORTING LIMIT IS 50 MG/KG

^{**} UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS



LANDAU ASSOCIATES CLIENT:

130-2ND AVE. S.

EDMONDS, WA 98020

DATE:

2/26/04

CCIL JOB #:

402093

CCIL SAMPLE #:

25

DATE RECEIVED:

2/25/04

WDOE ACCREDITATION #:

C142

CLIENT CONTACT: JERRY NINTEMAN

CLIENT PROJECT ID: CLIENT SAMPLE ID:

MERCY DEVELOPMENT 204005.011

YSB-8-ESW-2' & YSB-8-ESW-4' 2/24/04 1235 & 1230

	DATA RESUL	TS			
ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	ND	MG/KG	2/25/04	LAH
BENZENE TOLUENE ETHYLBENZENE XYLENES	EPA-8021 EPA-8021 EPA-8021 EPA-8021	ND(<0.03) ND(<0.05) ND(<0.05) ND(<0.2)	MG/KG MG/KG MG/KG MG/KG	2/25/04 2/25/04 2/25/04 2/25/04	LAH LAH LAH LAH
TPH-DIESEL RANGE TPH-LUBE OIL RANGE	NWTPH-DX NWTPH-DX	ND ND	MG/KG MG/KG	2/25/04 2/25/04	DLC

DIESEL RANGE REPORTING LIMIT IS 25 MG/KG

LUBE OIL RANGE REPORTING LIMIT IS 50 MG/KG

^{* &}quot;ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS: GASOLINE(VOLATILE RANGE) REPORTING LIMIT IS 3 MG/KG

^{**} UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY. WEIGHT BASIS



LANDAU ASSOCIATES CLIENT:

DATE:

2/26/04

130-2ND AVE. S.

CCIL JOB #:

402093

EDMONDS, WA 98020

CCIL SAMPLE #:

26

DATE RECEIVED:

2/25/04

WDOE ACCREDITATION #:

C142

CLIENT CONTACT: JERRY NINTEMAN

CLIENT PROJECT ID:

MERCY DEVELOPMENT 204005.011

CLIENT SAMPLE ID:

YSB-8-SSW-2' & YSB-8-SSW-4' 2/24/04 1240 & 1245

	DATA RESUL	T\$			
ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	ND	MG/KG	2/25/04	LAH
BENZENE TOLUENE ETHYLBENZENE XYLENES	EPA-8021 EPA-8021 EPA-8021	ND(<0.03) ND(<0.05) ND(<0.05) ND(<0.2)	MG/KG MG/KG MG/KG MG/KG	2/25/04 2/25/04 2/25/04 2/25/04	LAH LAH LAH LAH
TPH-DIESEL RANGE TPH-LUBE OIL RANGE	NWTPH-DX NWTPH-DX	ND ND	MG/KG MG/KG	2/25/04 2/25/04	DLC

^{* &}quot;ND" INDICATES ANALYZE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS: GASOLINE (VOLATILE RANGE) REPORTING LIMIT IS 3 MG/KG DIESEL RANGE REPORTING LIMIT IS 25 MG/KG LUBE OIL RANGE REPORTING LIMIT IS 50 MG/KG

^{**} UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS



LANDAU ASSOCIATES CLIENT:

130-2ND AVE. S.

EDMONDS, WA 98020

DATE:

2/26/04

CCIL JOB #:

402093

CCIL SAMPLE #:

27

DATE RECEIVED:

2/25/04

WDOE ACCREDITATION #:

C142

CLIENT CONTACT: JERRY NINTEMAN

CLIENT PROJECT ID:

MERCY DEVELOPMENT 204005.011

CLIENT SAMPLE ID:

YSB-8-NSW-2' & YSB-8-NSW-4' 2/24/04 1250 & 1255

	DATA RESUL	TS			
				ANALYSIS	ANALYSIS
ANALYTE	METHOD	RESULTS*	UNITS**	DATE	BY
TPH-VOLATILE RANGE	NWTPH-GX	ND	MG/KG	2/25/04	LAH
BENZENE	EPA-8021	ND(<0.03)	MG/KG	2/25/04	LAH
TOLUENE	EPA-8021	ND(<0.05)	MG/KG	2/25/04	LAH .
ETHYLBENZENE	EPA-8021	ND(<0.05)	MG/KG	2/25/04	LAH
XYLENES	EPA-8021	ND(<0.2)	MG/KG	2/25/04	LAH
TPH-DIESEL RANGE	NWTPH-DX	ND	MG/KG	2/25/04	DLC
TPH-LUBE OIL RANGE	NWTPH-DX	ND	MG/KG	2/25/04	DLC

[&]quot;"NO" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS: GASOLINE(VOLATILE RANGE) REPORTING LIMIT IS 3 MG/KG DIESEL RANGE REPORTING LIMIT IS 25 MG/KG LUBE OIL RANGE REPORTING LIMIT IS 50 MG/KG

^{**} UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS



LANDAU ASSOCIATES CLIENT:

DATE:

2/26/04

130-2ND AVE. S.

CCIL JOB #:

402093

EDMONDS, WA 98020

CCIL SAMPLE #:

28

DATE RECEIVED:

2/25/04

WDOE ACCREDITATION #:

C142

CLIENT CONTACT: JERRY NINTEMAN

CLIENT PROJECT ID:

MERCY DEVELOPMENT 204005.011

CLIENT SAMPLE ID:

YSB-1-NSW-6' & YSB-1-NSW-4' 2/24/04 1020 & 1030

	DATA RESUL	TS			
ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	ND	MG/KG	2/25/04	LAH
BENZENE	EPA-8021	ND(<0.03)	MG/KG	2/25/04	LAH
TOLUENE ETHYLBENZENE	EPA-8021 EPA-8021	ND(<0.05) ND(<0.05)	MG/KG MG/KG	2/25/04 2/25/04	LAH LAH
XYLENES	EPA-8021	ND(<0.2)	MG/KG	2/25/04	LAH .
TPH-DIESEL RANGE TPH-LUBE OIL RANGE	NWTPH-DX NWTPH-DX	ND ND	MG/KG MG/KG	2/25/04 2/25/04	DLC

[&]quot;"ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS: GASOLINE(VOLATILE RANGE) REPORTING LIMIT IS 3 MG/KG DIESEL RANGE REPORTING LIMIT IS 25 MG/KG LUBE OIL RANGE REPORTING LIMIT IS 50 MG/KG

^{**} UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS



CLIENT: L

LANDAU ASSOCIATES

130-2ND AVE. S.

EDMONDS, WA 98020

DATE:

2/26/04

CCIL JOB #:

402093

CCIL SAMPLE #:

29

DATE RECEIVED:

20

WDOE ACCREDITATION #:

2/25/04 C142

CLIENT CONTACT: JERRY NINTEMAN

CLIENT PROJECT ID:

MERCY DEVELOPMENT 204005.011

CLIENT SAMPLE ID:

YSB-1-WSW-4' & YSB-1-WSW-6' 2/24/04 1140 & 1145

	DATA RESUL	TS			
ANALYTE	METHOD	RESULTS*	UNITS**	ANALYSIS DATE	ANALYSIS BY
TPH-VOLATILE RANGE	NWTPH-GX	ND	MG/KG	2/25/04	LAH
BENZENE	EPA-8021	ND(<0.03)	MG/KG	2/25/04	LAH
TOLUENE	EPA-8021	ND(<0.05)	MG/KG	2/25/04	LAH
ETHYLBENZENE	EPA-8021	ND(<0.05)	MG/KG	2/25/04	LAH
XYLENES	EPA-8021	ND(<0.2)	MG/KG	2/25/04	LAH
TPH-DIESEL RANGE	NWTPH-DX	27	MG/KG	2/25/04	DLC
TPH-LUBE OIL RANGE	NWTPH-DX	ND	MG/KG	2/25/04	DLC .

NOTE:

CHROMATOGRAM INDICATES SAMPLE CONTAINS PRODUCT WHICH IS LIKELY WEATHERED DIESEL FUEL

GASOLINE(VOLATILE RANGE) REPORTING LIMIT IS 3 MG/KG

DIESEL RANGE REPORTING LIMIT IS 25 MG/KG

LUBE OIL RANGE REPORTING LIMIT IS 50 MG/KG

** UNITS FOR ALL NON LIQUID SAMPLES ARE REPORTED ON A DRY WEIGHT BASIS

^{* &}quot;ND" INDICATES ANALYTE ANALYZED FOR BUT NOT DETECTED AT LEVEL ABOVE REPORTING LIMIT. REPORTING LIMIT IS GIVEN IN PARENTHESES OR AS FOLLOWS:



CLIENT: LANDAU ASSOCIATES DATE:

2/26/04

130-2ND AVE. S.

CCIL JOB #:

402093

EDMONDS, WA 98020

DATE RECEIVED:

2/25/04

WDOE ACCREDITATION #:

C142

122

CLIENT CONTACT: JERRY NINTEMAN

CLIENT PROJECT ID:

102093-27

MERCY DEVELOPMENT 204005.011

QUALITY CONTROL RESULTS SURROGATE RECOVERY % RECV ANALYTE **CCIL SAMPLE ID** SUR ID **NWTPH-GX TFT** 75 402093-01 402093-01 EPA-8021 TFT 72 402093-01 **NWTPH-DX** C25 114 402093-02 **NWTPH-GX** TFT 88 TFT 402093-02 EPA-8021 83 402093-02 **NWTPH-DX** C25 95 402093-03 **NWTPH-GX** TFT 89 402093-03 EPA-8021 TFT 82 402093-03 **NWTPH-DX** C25 114 402093-04 **NWTPH-GX** TFT 88 402093-04 EPA-8021 TFT 84 402093-04 **NWTPH-DX** 97 C25 **NWTPH-GX** TFT 402093-17 97 402093-17 EPA-8021 TFT 91 402093-17 **NWTPH-DX** C25 122 402093-18 **NWTPH-DX** C25 83 402093-19 **NWTPH-DX** C25 125 402093-20 **NWTPH-GX** TFT 93 402093-20 EPA-8021 **TFT** 88 402093-20 **NWTPH-DX** C25 96 402093-21 NWTPH-DX C25 108 402093-22 **NWTPH-DX** C25 71 402093-23 **NWTPH-DX** C25 113 **NWTPH-GX** 402093-24 TFT 88 402093-24 EPA-8021 TFT 83 402093-24 **NWTPH-DX** C25 93 402093-25 **NWTPH-GX** TFT 89 402093-25 EPA-8021 TFT 83 402093-25 NWTPH-DX C25 105 402093-26 **NWTPH-GX** TFT 93 402093-26 EPA-8021 TFT 87 402093-26 NWTPH-DX C25 88 402093-27 **NWTPH-GX** TFT 90 402093-27 EPA-8021 TFT 83

C25

NWTPH-DX



CLIENT: LANDAU ASSOCIATES DATE:

2/26/04

130-2ND AVE. S.

CCIL JOB #:

402093

EDMONDS, WA 98020

DATE RECEIVED:

2/25/04

WDOE ACCREDITATION #:

C142

CLIENT CONTACT: JERRY NINTEMAN

CLIENT PROJECT ID:

MERCY DEVELOPMENT 204005.011

02093-28		NWTPH-GX	TFT			88
02093-28		EPA-8021	TFT			81
02093-28		NWTPH-DX	C25			90
02093-29		NWTPH-GX	TFT			86
02093-29		EPA-8021	TFT			82
102093-29		NWTPH-DX	C25			119
		BLANK AND DUPLICATE RESULTS				*
ETHOD	BLK RESULT	ASSOC SMPLS	DUP RESULT	ORIG RESULT	%RPD	ASSOC SMPLE
IWTPH-GX (GAS)	ND(<3)	402093-01 TO 04, 17, 20, 24 TO 29				
PA-8021(BENZENE)	ND(<0.03)	402093-01 TO 04, 17, 20, 24 TO 29				
PA-8021(TOLUENE)	ND(<0.05)	402093-01 TO 04, 17, 20, 24 TO 29				
PA-8021(ETHYLBENZ)	ND(<0.05)	402093-01 TO 04, 17, 20, 24 TO 29				
PA-8021(XYLENE)	ND(<0.2)	402093-01 TO 04, 17, 20, 24 TO 29				
WTPH-DX (DSL)	ND(<25)	402093-01 TO 04, 17 TO 29				
IWTPH-DX (OIL)	ND(<50)	402093-01 TO 04, 17 TO 29				8

SPIKE/ SPIKE DUPLICATE RESULTS

		ASSOCIATED	% SPIKE	% SPIKE DUP		
METHOD	SPIKE ID	SAMPLES	RECOVERY	RECOVERY	REL % DIFF	
NWTPH-GX	GASOLINE	402093-01 TO 04, 17, 20, 24 TO 29	140	138	1	
EPA-8021	BENZENE	402093-01 TO 04, 17, 20, 24 TO 29	110	114	4	
EPA-8021	TOLUENE	402093-01 TO 04, 17, 20, 24 TO 29	109	114	5	
EPA-8021	ETHYLBENZENE	402093-01 TO 04, 17, 20, 24 TO 29	110	116	5	
EPA-8021	XYLENE	402093-01 TO 04, 17, 20, 24 TO 29	108	113	5	
NWTPH-DX	DIESEL	402093-01 TO 04, 17 TO 29	109	100	9	

☐ Accelerated ☑ 2.4 ¼ ſ. **Turnaround Time** □ Standard 45B-1-85W -800 126-6-120 12/2/2 Observations/Comments 150 B - M50 Time Vr. cy. K 126-B 00 COMOS 120-1 C= Stain A 100 Received by Printed Name Company Signature Date Method of Shipment **Festing Parameters** Time Chain-of-Custody Record Relinquished by Printed Name Signature Company Date * 245 × Project No. 20405.01 Containers, No. of Matrix Date 3/25% CLAL Received by Printed Name A.CF 1250 ☐ Portland (Tigard) (503) 443-6010 1220 1240 1350 1245 1255 1030 1205 1235 1230 000 1015 1200 20 520 Signature Company 言え Time Love Word 1 towar Visto Mar 7 Date Attock) Time 1430 03 TOUR Joseph 17 Sampler's Name Kew 15B-8-B1M2-6 Special Shipment/Handling 15B-B-N5W-H 148-8-55W-41 15B-8-55W-2' 1913-1-120-6 YSB-8-WSW-2' 45B-8-ESW-41 193-8-ESW-2 158-8-N5W-2 148-1-WSW-6 15B-1-115W-4 or Storage Requirements, 4-28-WSW-4 4-052-1-84 Project Location/Event Sample I.D. V5B-1-87m Relinguished by Send Results To_ 125/04 Project Contact Project Name Printed Name Signature Company

PINK COPY - Client Representative

YELLOW COPY - Laboratory

WHITE COPY - Project File

Date 2/25/04/

感Seattle (Edmonds) (425) 778-0907

☐ Spokane (509) 327-9737

LANDAU ASSOCIATES

☐ Tacoma (253) 926-2493

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Page_

19 77 d ☐ Accelerated ō Turnaround Time □ Standard Observations/Comments Time Page_ Received by Printed Name Signature Company Date Method of Shipment **Testing Parameters** Time Chain-of-Custody Record Relinquished by Printed Name Company Signature Date X 245 Project No. 204005,011 No. of Containers/ 2/25/64 Time Matrix Printed Name Received by ☐ Portland (Tigard) (503) 443-6010 500 138 1005 2/24/21/0930 0220 000 1010 Signature Time Company Date__ 11: whowas ☐ Spokane (509) 327-9737 2/24/04 Kinteriou Date, Sz 15.6-1-NSN-6-4 Time 1430 T. 1. 8. N. X. - 2. 11. P. - K-5-11-254 1K # - 1-165W-4" 1.65. H. V.B. 8- W.S.J. 4. W5W-8.5 -65W-8.5 158-8-15WZ 1755-8.5 1000 Project Contact 45R-1-BM3-16 Special Shipment/Handling ーだろりした Project Name Mercy or Storage Reguirements Sampler's Name / 1555-45B-1-Char 5 Project Location/Event Sample I.D. LANDAU
ASSOCIATES Send Results To_ Relinguished by Printed Name Signatyre -Company 75B YSA Y50 Date 50

Seattle (Edmonds) (425) 778-0907 ☐ Tacoma (253) 926-2493

Hev. 6/02

PINK COPY - Client Representative

oratory

YELLOW COPY

WHITE COPY - Project File

Anderson PCS Facility Load Tickets

ANDERSON ROCK & DEMOLITION PITS

41 ROCKY TOP RD. YAKIMA, WA. 98908 2 1 2004

Statement

DATE

2/29/2004

TO:

VELIKANJE MOORE & SHORE P.O. BOX 2550 YAKIMA, WA. 98907

\$24,593.14
BALANCE
0.0 1,433.4 10,023.1 14,466.1 23,069.1 24,593.1
AMOUNT DUE

count is due in full on the 10th of the aonth following purchases. Please pay in



Rock & Demolition Pits
Petroleum Contaminated Soils Site
Topsoil ~ Shale ~ Crushed Rock

Nº 28106

41 Rocky Top Road Yakima, WA 98908

We make deliveries inside the curb line at customer's risk only and accept no responsibility whatsoever for damages resulting from such deliveries. MR. Mark Fi Cless Received by		Office	375	EShore
Date Sold by	Job#	2204 MOB	Hill	Blvd.
WEIGHT TICKET# TIME TRUCK CHANT	Haule	ed by MRM		
WEIGHT TICKET'# TIME NO. QUANTI	ITY	PRODUCT	UNIT PRICE	AMOUNT
Nov 3800 - 25 1/5 /00	4	Demo.	5	50.00
2/24 388022:29 2 115 29.0	Ø_	Rit Run	350	101.50
38804 3:233 118 29-	35	Pit-Run.	350	102.38
38811 3.59 4 118 36.9	13	PitRun.	350	108.26
38812 4125 115 39.6	07	Pit Run	350	103.85
2125/04 8:07 115 5C	y	Denio.	5	25.00
38819 8:29 7115 26.9	8	pit Run	350	94.40
38820 8:33 118 29.7	6	PitRun	/1	104.16
38827 10:06 115 31.0	9	Pit Run	//	108.82
38832 10:2810/18 32.5	34	Pit Run	/1	113.89
38834 11:18 115 30.3	0	Pit Run	11	106.05
38836 1121 12 118 28.3	35	Pit Run	11	99.23
38838 ANII 13 115 A9.4	19	PitRun	350	103.22
38839 12:15 118 31.80	4	Pit Run	11	111.44
TOTAL 15 Cy De	enio	1359.19 ton		1332.17
1.5% PER MONTH IF ACC	PAY (a)	A LATE CHARGE OF		101.24
10 DAYS OF INVOICE, A INCURRED IN COLLECTION	AND (b)) ATTORNEY'S FEES	7	1433.41
				. 00. 11



Rock & Demolition Pits

Petroleum Contaminated Soils Site Topsoil ~ Shale ~ Crushed Rock Nº 28104

41 Rocky Top Road Yakima, WA 98908

DELIVERIES We make deliveries inside the curb line at cust risk only and accept no responsibility whatsoe damages resulting from such deliveries.		Name	1111 11 100 010	Ficke	
defininges resuming near steril deriverses.		AL AL	20 Acres 25	50 TO	1000
			.U. OUX as	$l_{1}n$	98907
		Phon	year	_ ca	10107
			Office		2
Received by		P.O. #			
		Job#	2204 NOBH	ill Blud	
2 13304 Sold by		Haule	d by MRM		
WEIGHT TICKET # TIME TRUCK NO.	QUANT	ITY	PRODUCT	UNIT PRICE	AMOUNT
38757 11:49 1 115	28.	62	PCS	20,00	572.40
38757 11:532 118	30.	38	PCS	11	607.60
38756 1093/18	33.5	3	PCS	20,00	671.00
38758 1.19 4/15	28 5	57_	PCS	11	571.20
38759 1:28 5 48	35	99	PCS	20-	719.80
38762 2:13 6 118	2)	49	PCS	20-	649.80
3876 2:517 40	27 9	16	PCS	20-	559.20
387105 2:25 8115	12	19	DCS	20-	243.81
34776 R.20 9118	20	71	Drs	20-	614.20
28771 2:44:0115	27	15	pris	20-	553.00
20772 1.051147	28	25	Drs	30	5705.60
124 38777 7:29 12/18	29.	67	PCS	25-	593.41
124 38777 7:29 12118 28778 7:45 13 115	211	20	PCS	25-	491, 40
38779 8:264 1/8	25.8	10	PCS	20-	20560
TOTAL	200	15	- 703	, P	7902 F
DATE BILLED CUSTON	MER AGREES	TO PAY	(a) A LATE CHARGE OF		1006.7
1 5% PF	R MONTH IF	ACCOUN	T IS NOT PAID WITHIN (b) ATTORNEY'S FEES	\ \	006.71
INCURR	ED IN COLLE	CTION.			8301.1



Rock & Demolition Pits
Petroleum Contaminated Soils Site
Topsoil ~ Shale ~ Crushed Rock

No 28114

41 Rocky Top Road Yakima, WA 98908

risk only and acce	DELIVERIES ses inside the curb line at cust spt no responsibility whatsoe g from such deliveries.	tomer's	Phon	ess P.O. Box Home Office	25 . U	1G. C	e Eshore
WEIGHT TICKET #	TIME TRUCK	CHANT	Haule			UNIT	70000000
D - 0. 5.1	TIME NO.	QUANT	1114	PRODUCT		PRICE	AMOUNT
38801	7:03 1 1/8	30.9	13	PCS	(20-	658.60
38803	3:18 2 40	24.1	08	PCS		30-	493.60
38805	B:15 3/18	29.6	24	PCS		20-	592.80
388 <i>0</i> 8,	B:33 440	27.6	9	PCS	- (20-	553.80
2538810 9	3:07 5 115	13.6	5	PCS	(30-	273.00
38818	8:15 6 118	30.1		PCS		20-	613.20
38825	9:44 115	31.5	3	PCS		20-	631.00
38826	0:08 8 118	15.4	r Ce	RS		30-	313.20
	9 - 10	206	.46)			4129.20
	11.					-00-1	313.82
	13.						21 1 3
<u></u>	14						4443.62
	TOTAL						
DATE BILLED	1.5% PER 10 DAYS	MONTH IF A	CCOUNT , AND (1	n) A LATE CHARGE OF IS NOT PAID WITHIN D) ATTORNEY'S FEES	- 1		



Rock & Demolition PitsPetroleum Contaminated Soils Site
Topsoil ~ Shale ~ Crushed Rock

Nº 28110 41 Rocky Top Road Yakima, WA 98908

We make deliveries risk only and accep	DELIVERIES is inside the curb line at custo of no responsibility whatsoever from such deliveries.		Name	0	likanj O. Box	25	5D	, '
Mr. Ma	K Fick	es	Phone	. Ya	Home Office	Wa	, 98	3907
Received by	Caldhi		P.O. #	22	04 no	BHi	//	
2 13404	Sold by	9.75	Hauled	by	nRM			
WEIGHT TICKET #	TIME TRUCK NO.	QUANT	ITY		PRODUCT		UNIT PRICE	AMOUNT
38780 8	3:48 1 /15	20.0	25	PC	5	d	76-	601.00
38781	9:252 118	31.1	8	PC	5		30	623.60
38782	7:463115	24.	76	R	3		20-	495.20
38784	0:17 4 118	29.0	00	P	!s		20-	592.00
38791	11:16 5 118	27.	83	20	-5		20 -	556.60
38792	11:35 640	28.9	13	PC	<u> </u>		20-	578.60
38785	0.467115	28.8	30	Pl	3		20	576.00
38794	11:47 8 115	29.3	32	P	CS		30-	586.40
38795	2:123 118	30.	87	P	CS		20-	617.40
387961	239 10 40	27.	20	P	CS	4	30-	544.00
387971	2:54 115	26.	65	Po	25		20-	533.00
38798	1:09 12118	31.1	0	Po	25	0	30-	622.00
38799	1:28 13 40	25.	32	ρ	cs		20-	506.40
38800	1:52 14 115	28.1	6	PC	5	C	30-	563.20
	TOTAL	399.	77 4	on				7995.40
DATE BILLED	1.5% PEI	ER AGREES	ACCOUN	T IS NOT P	AID WITHIN			607.45
	10 DAYS	OF INVOICE	E, AND	(b) ATTOR	NEY'S FEES	. }	5	1603.05



Rock & Demolition Pits
Petroleum Contaminated Soils Site Topsoil ~ Shale ~ Crushed Rock

No 28120

41 Rocky Top Road Yakima, WA 98908

DELIVERIES We make deliveries inside the curb line at customer's risk only and accept no responsibility whatsoever for damages resulting from such deliveries.			e MRM(V	Imé.	s)
		Phon	e Home		
			Office		
		P.O. #			
Received by	0	Job#	2204 no	3 Hill	
2 13,5704 Sold by	cus	Haule	2010) /////	
WEIGHT TICKET # TIME TRUCK NO.	QUANT	TTY	PRODUCT	UNIT	AMOUNT
38840 1:27 1 115	28.	20	Pit Rus	1, 350	98.76
38841 1:31 2 118	30.	ZI	//	11	105,74
764 38850 8:023 118	31.8	12	/ (11	111.37
38851 8:04 4 115	28.4	14	, <i>n</i>	11	99.54
38853 857 \$118	29.0	23	11	11	102-31
388549:02 6 115	274.7	70	"(''	86.45
388569:471118	29.3	28	//	"	103.5
388579508115	27.5	54	11	4	96.39
38858 p:35 118	301	25	11	1	107.28
38859 10:440 115	26.0	57	11	1/	93.60
38863 11.2411 118	31.1	1	t i	11	108.89
38864 11:3312 115	28.	75	u	11	100.63
38865/2:2013/18	31.1.	5	11	11	109.03
38866 12:25 17 115	26.	71	1/	. 11	93.49
TOTAL	404.	66	ton		1416.31
1.5% P 10 DAY	ER MONTH IF A	CCOUNT , AND (I	a) A LATE CHARGE OF TIS NOT PAID WITHIN TO ATTORNEY'S FEES	0% Tax =	